CLAIMS

What is claimed is:

1. A method for dynamically adjusting searcher thresholds in a base band receiver, the searcher thresholds being used to detect propagation paths of a communications signal transmitted from a transmitter to the base band receiver, the method comprising the steps of:

obtaining interference signal code power (ISCP) measurements of the communications signal from a database communicatively coupled with the base band receiver, wherein contents of the database are associated with a physical layer;

calculating a scaler based on the ISCP measurements only;

adjusting the searcher thresholds, which are stored in the database, using the scaler; and

storing the adjusted searcher thresholds in the database.

2. The method of claim 1, further comprising the steps of:

summing the ISCP measurements to create a total ISCP; and

normalizing the total ISCP;

wherein the scaler is calculated based on the normalized total ISCP.

3. The method of claim 1, wherein the step of obtaining ISCP measurements comprises the steps of:

populating a memory location with ISCP measurements during physical layer processing; and

accessing the memory location.

4. The method of claim 1, wherein the step of calculating the scaler comprises the steps of:

calculating a total ISCP by adding the ISCP measurements of all fingers of all uplinks;

calculating a normalized value of the total ISCP; and

dividing the normalized value of total ISCP by a delayed value of ISCP.

5. The method of claim 4, wherein the normalized value of total ISCP is calculated by dividing the total ISCP by a buffered value equal to a number of uplink connections times a threshold update time divided by a predetermined observation period.

6. The method of claim 5, wherein the predetermined observation period is 80ms.

7. The method of claim 1, wherein the step of adjusting the searcher thresholds comprises the step of multiplying the searcher thresholds by the scaler.

8. The method of claim 7, wherein the searcher thresholds are searcher thresholds of respective uplinks.

9. A method for identifying optimal propagation paths of a communications signal transmitted from a transmitter to a base band receiver, the method comprising the steps of:

obtaining interference signal code power (ISCP) measurements of the communications signal from a database communicatively coupled with the base based receiver, wherein contents of the database are associated with a physical layer;

calculating a scaler based on the ISCP measurements only;

adjusting searcher thresholds, which are stored in the database, using the scaler;

storing the adjusted searcher thresholds in the database;

comparing the adjusted searcher thresholds with detection values of propagation paths of the communications signal; and

identifying the optimal propagation paths.

10. The method of claim 9, wherein the identifying step comprises:

sorting the propagation paths based on their respective detection values; and

selecting as the optimal propagation paths the propagation paths having the highest detection values.

11. The method of claim 9, including the additional step of storing historical data concerning the propagation paths, and wherein the selecting step is based further upon the historical data.

12. The method of claim 10, including the additional step of storing historical data concerning the propagation paths, and wherein the selecting step is based further upon the historical data.

13. A system for dynamically adjusting searcher thresholds in a base band receiver, the searcher thresholds being used to detect propagation paths of a communications signal transmitted from a transmitter to the base band receiver, the system comprising:

means for obtaining interference signal code power (ISCP) measurements of the communications signal from a database communicatively coupled with the base band receiver, wherein contents of the database are associated with a physical layer;

means for calculating a scaler based on the ISCP measurements only;

means for adjusting the searcher thresholds, which are stored in the database, using the scaler; and

means for storing the adjusted searcher thresholds in the database.

14. The system of claim 13, further comprising:

means for summing the ISCP measurements to create a total ISCP; and

means for normalizing the total ISCP;

wherein the scaler is calculated based on the normalized total ISCP.

15. The system of claim 13, wherein the means for obtaining ISCP measurements comprises:

means for populating a memory location with ISCP measurements during physical layer processing; and

means for accessing the memory location.

16. The system of claim 13, wherein the means for calculating the scaler comprises:

means for calculating a total ISCP by adding the ISCP measurements of all fingers of all uplinks;

means for calculating a normalized value of the total ISCP; and

means for dividing the normalized value of total ISCP by a delayed value of ISCP.

17. The system of claim 16, wherein the means for calculating the normalized value of total ISCP comprises means for dividing the total ISCP by a buffered value equal to a number

of uplink connections times a threshold update time divided by a predetermined observation period.

18. The system of claim 17, wherein the predetermined observation period is 80ms.

19. The system of claim 13, wherein the means for adjusting the searcher thresholds comprises a means for multiplying the searcher thresholds by the scaler.

20. The system of claim 19, wherein the searcher thresholds are searcher thresholds of respective uplinks.

21. A system for identifying optimal propagation paths of a communications signal transmitted from a transmitter to a base band receiver, comprising:

means for obtaining interference signal code power (ISCP) measurements of the communications signal from a database communicatively coupled with the base based receiver, wherein contents of the database are associated with a physical layer;

means for calculating a scaler based on the ISCP measurements only;

means for adjusting searcher thresholds, which are stored in the database, using the scaler;

means for storing the adjusted searcher thresholds in the database;

means for comparing the adjusted searcher thresholds with detection values of propagation paths of the communications signal; and

means for identifying the optimal propagation paths.

22. The system of claim 21, wherein the means for identifying comprises:

means for sorting the propagation paths based on their respective detection values; and

means for selecting as the optimal propagation paths the propagation paths having the highest detection values.

23. The system of claim 21, additionally including means for storing historical data concerning the propagation paths, and wherein the means for selecting selects optimal propagation paths based further upon the historical data.

24. The system of claim 22, additionally including means for storing historical data concerning the propagation paths, and wherein the means for selecting selects optimal propagation paths based further upon the historical data.